

Abstract

The present invention in various embodiments provides methods of treating stroke and conferring protection on a population of cells associated with ischemia in a subject following an ischemic event, comprising: (a) providing an estrogen compound; and

5 (b) administering the effective amount of the compound over a course that includes at least one dose within a time that is effectively proximate to the ischemic event, so as to confer protection on the population of cells. Novel methods are provided for the delivery of an estrogen compound. Examples of ischemic events treatable according to the invention are cerebrovascular disease or stroke, subarachnoid subhemorrhage, myocardial infarct, surgery

10 and trauma. A method of treating ischemic damage utilizing hormones that are non-sex hormones is also provided. A method of treating stroke with *ent*-17 β -estradiol, and a method of synthesis, and compounds produced from the synthesis are provided.

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